

DEP-3

SERVICE NOTES *First Edition*

SPECIFICATIONS

Input Level/Impedance

+4dBm/47k Ω -20dBm/47k Ω

Stereo Output Level/Impedance

+4dBm: (+18dBm max.)/600 Ω -20dBm (-5dBm max.)/600 Ω

A/D-D/A Conversion

16 bit Linear

Sampling Frequency

32kHz

Frequency Response

10Hz to 50kHz +0
-3 dB (Direct)30Hz to 12kHz +1
-3 dB (Reverb)

SN Ratio (IHF A at Rated Input)

82dB (Direct)

76dB (Reverb)

Dynamic Range

Over 94dB (Direct)

Over 86dB (Reverb)

Total Harmonic Distortion

(at 1kHz, Rated Input)

Below 0.02% (Direct)

Below 0.08% (Reverb)

Pre-delay Time

0 to 120ms (Reverb Mode)

0 to 120ms (Non-linear Mode)

Reverb Time

0.1 to 99s (Reverb Mode)

0.1 to 10s (Non-linear Mode)

HF Damp Control

x0.05 to x1.0

Gate Time

10 to 450ms

Delay Time

2 to 500ms

Reverb

Room : 1.0 to 15 (3 steps)

Hall : 15 to 26 (3 steps)

Plate : A and B

Equalizer

Low : Frequency 100Hz

Boost/Cut ± 12 dB

Mid : Frequency 1kHz

Boost/Cut ± 12 dB

High : Frequency 10kHz

Boost/Cut ± 12 dB

Power Consumption

15W

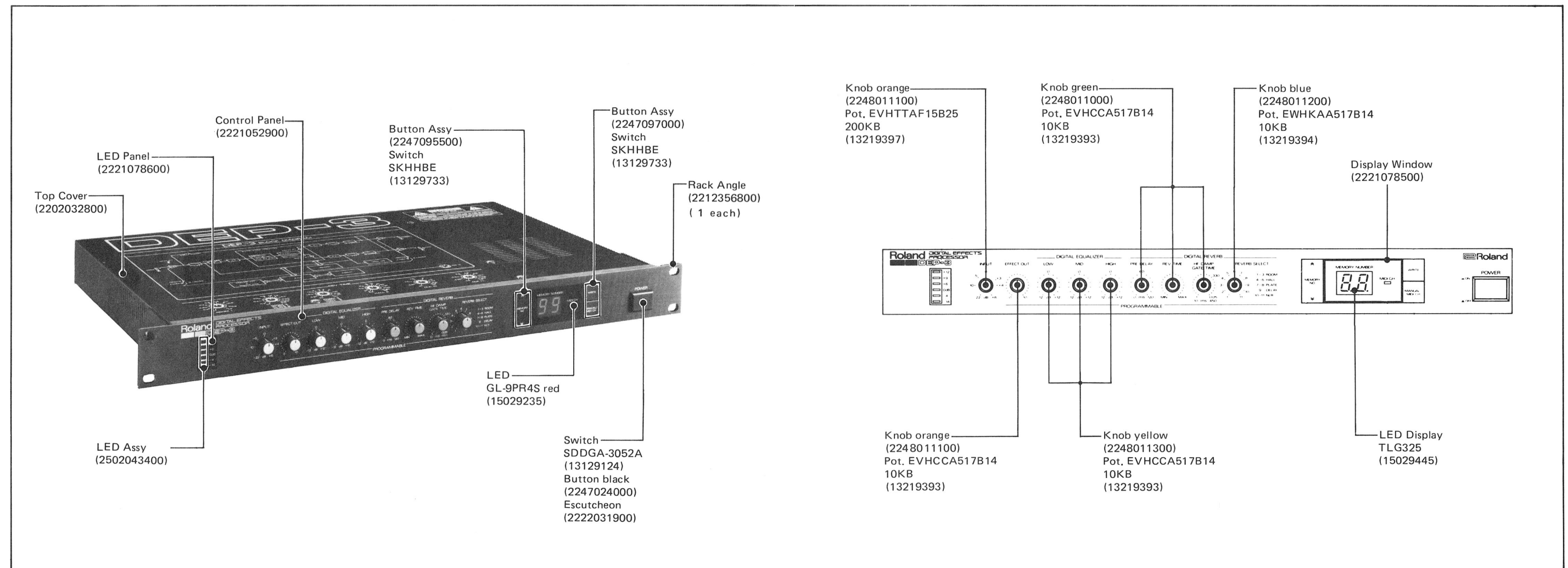
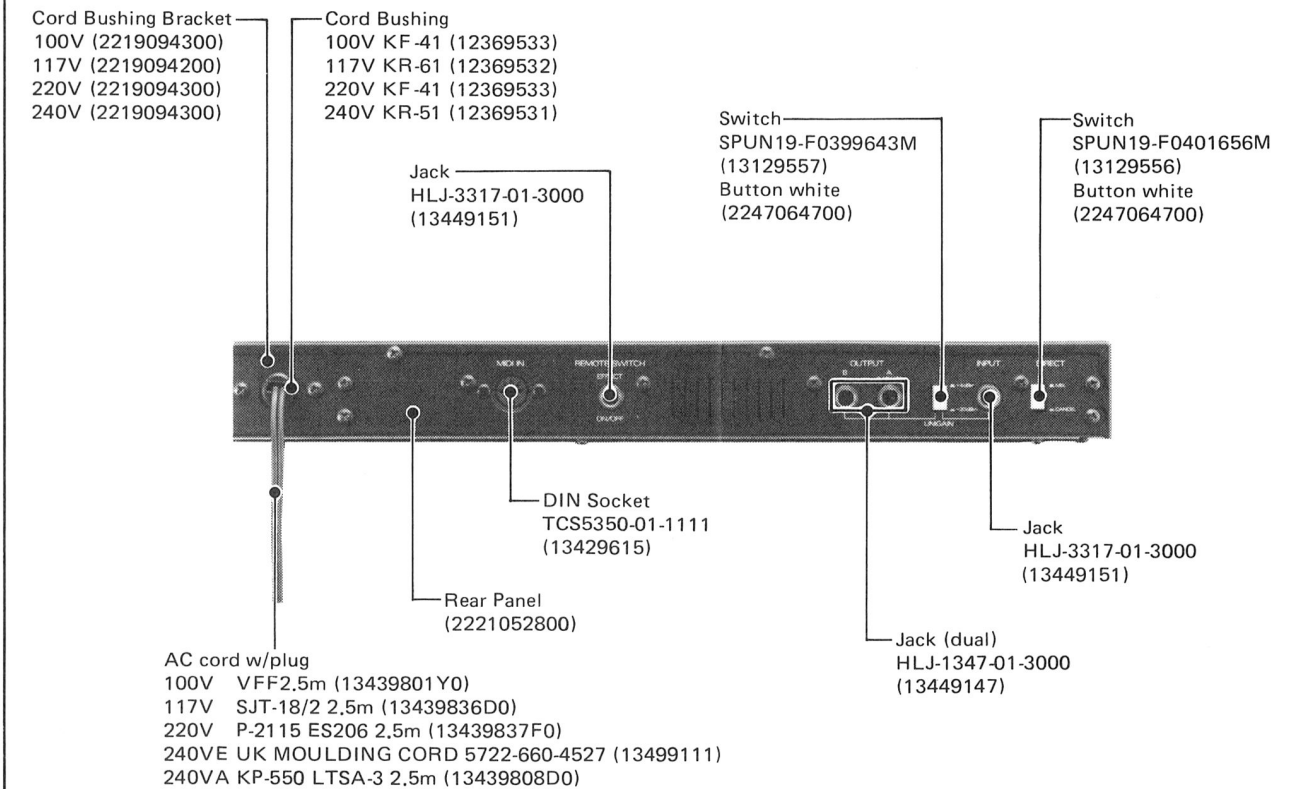
Dimensions

482 (W) x 47 (H) x 289 (D) mm

19 (W) x 1-7/8 (H) x 11-3/8 (D) in.

Weight

3.5 kg/7 lb. 12 oz.

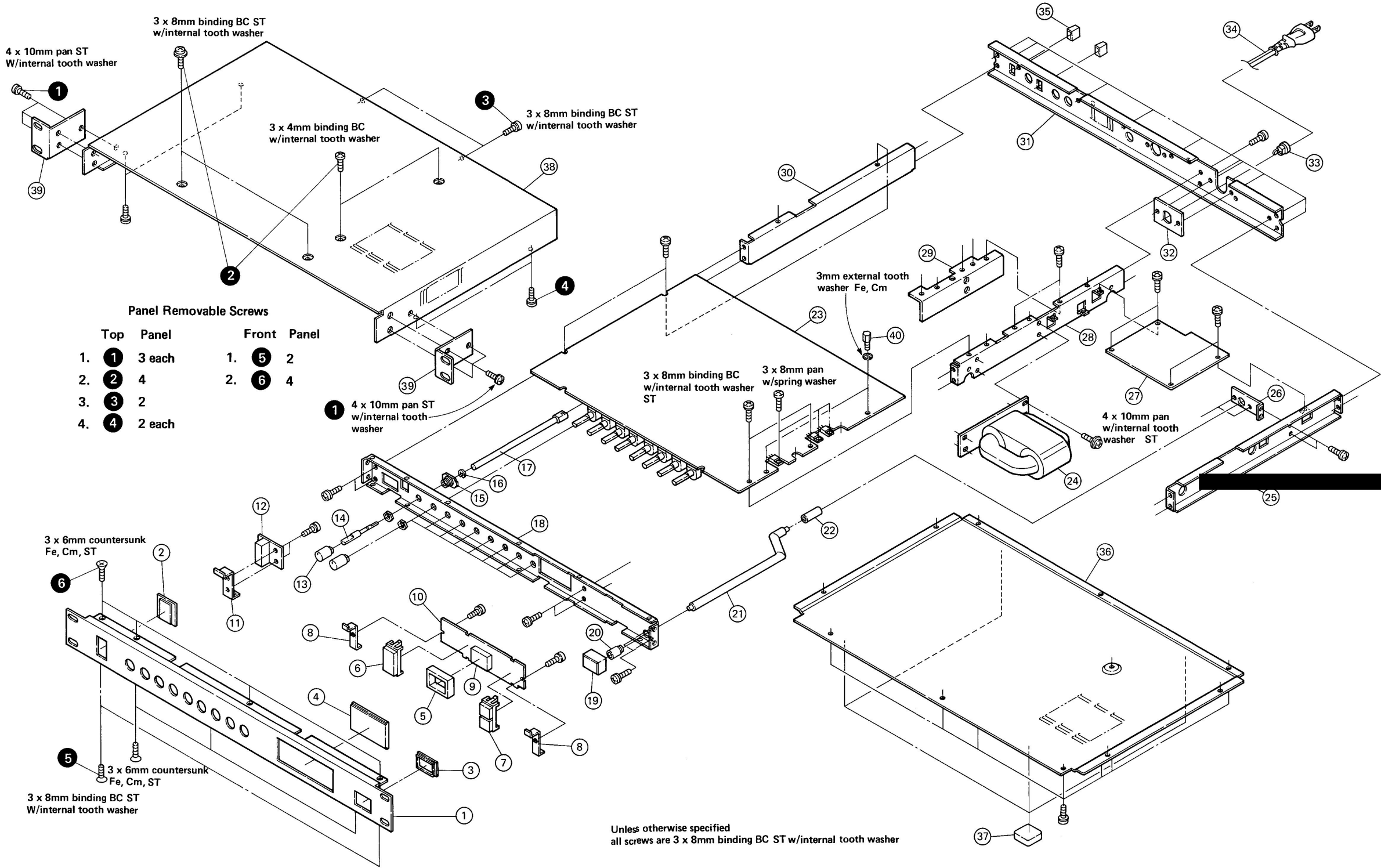


PARTS LIST

CASING			
2202032800	Top Cover		
2202032900	Bottom Cover		
2221052900	Control Panel		
2221052800	Rear Panel		
2212356800	Rack Angle		
2221078500	Display Window		
2221078600	LED Panel (Level Meter Window)		
2281056400	Front Chassis		
2281056500	Power Transformer Chassis		
2281056700	Side Chassis left		
2281056600	Side Chassis right		
2246049600	Heat Sink		
2235031300	Foot(square mat)		
2222031900	Escutcheon		
KNOB, BUTTON			
2248011000	Knob 8mm dia	green	
2248011100	Knob 8mm dia	orange	
2248011200	Knob 8mm dia	blue	
2248011300	Knob 8mm dia	yellow	
2247024000	Button black		POWER
2247064700	Button white		UNIGAIN, DIRECT
2247095500	Button Assy		MEMORY NUMBER
2247097000	Button Assy		WRITE, MANUAL/MIDI CH
SWITCH			
13129124	SDDGA-3052A		POWER
13129556	SPUN19-F0401656M		DIRECT
13129557	SPUN19-F0399643M		UNIGAIN
13129733	SKHHBE		switch board
JACK, SOCKET			
13449147	HLJ-1347-01-3000		dual
13449151	HLJ-3317-01-3000		
13429615	DIN Socket TCS5350-01-1111		single
13429531	DICF-T28AS-E		IC Socket 28P
POWER TRANSFORMER			
22450472N0	100V		
22450473C0	117V		
22450474D0	220V		
22450475A0	240V		
COIL			
12449229M1	FK08160MH15		
12449284	LPF 12KHz 6M-606		
12399501M1	BL02RN2-R62		inductor
13529105M1	OSS310-550223S		EMI Filter
13529120M1	BNP002-02		EMI Filter
PCB			
7413840000	Main Board		(pcb 2292040300)
7413844000	Switch Board		(pcb 2292040400)
7413845100	Power Supply Board	100V	(pcb 2292045700)
7413845300	Power Supply Board	117V	(pcb 2292045700)
7413845400	Power Supply Board	220V, 240V	(pcb 2292045700)
For LED Meter see LED section.			
POTENTIOMETER			
13219397	EVHTTAF15B25	200KB	
13219393	EVHCCA517B14	10KB	
13219394	EWHKAA517B14	10KB	
13299115	H1051A015-22KB	trimmer	
13299197	EVND4AA00B15	trimmer	
IC			
15179256	μPD78C10G	CPU (external ROM version)	
15179828	MBM27C128-20	EP ROM	
15179263	μPD78C14G	CPU (w/built-in ROM)	
Substituting 14G type to 10G makes EP ROM idle.			
14G917*を使用した場合、EP ROM は不用となる			
15149121	M54522P	transistor array	
15159503	TC40H000P	(40H only) quad NAND gate	
15159540	TC74HC373P	(74HC only) octal D-F/F	
15169517	74F04	(F type only) hex inverter	
15179373	μPD446C-2L	S RAM	
15179376	MB81416-10	D RAM	
15189111J1	NJM-311D	Comparator	
15189129	TL072	OP amp	
15189132	NJM-4556D	OP amp	
15189186	μPC4570C	OP amp	
15199147	M5F7815	voltage regulator	
15199148	M5F7915	voltage regulator	
15199149	M5F7805	voltage regulator	
15219116	IR-2E02	LED driver	
15219176	NJU-7301D	analog switch	
15219178	PCM-54HP-S	D/A converter	
15229712	PC900	opto-isolator	
15229859	MB87126A-007	Roland custom IC (reverb)	
TRANSISTOR			
15119125	2SA-1115-28-F		
15129130	2SC-1583F		
15129136	2SC-2878-A		
15129137	2SC-2603-28-F		
15129171	OTC-114ES SPT	(w/built-in bias resistors)	
DIODE			
15019124	1S-188FM1-UB4		
15019125	1SS-133		
15019251	1N-4007		
15019270	10DF1		
15019275	3B4B41		bridge rectifier
15019404	MTZ6.2B		zener
LED			
15029445	TLG325		dual 7-seg
15029235	GL-9PR4S		red
2502043400	LED ASSY		level meter
FUSE			
12559532	CEE T630 mA	100V	
12559413	SO6 630 mA	117V	
12559509	CEE T315 mA	220V, 240V	
AC CORD			
13439801Y0	VFF 2.5 m		100V
13439836D0	SJT-18/2 2.5 m		117V
13439837F0	P-2115 ES-206 2.5 m		220V
13499111	UK MOULDING CORD 5722-660-4527		240VE(England)
13439808D0	KP-550 LTSA-3 2.5 m		240VA(Australian)
RESISTOR			
13819167	1/2w 56 ohm		
CAPACITOR			
13529104	DE7150F472MVA1 4700pF		line bypass
13619302N0	4.7uF/16V tantalium		
13619908N0	10uF/6.3V tantalium		
13659271	16x25 3300uF/16V		electro
13659272	23x25 2200uF/35V		electro
CRYSTAL			
12389765	TQC-226A-6R 12MHz		
12389764	HC49U 40.96 MHz K06		
CONNECTOR			
13459510	WE-2 wrapping terminal		2p
13459508	WE-3 wrapping terminal		3p
13439123	MOLEX wafer assy 5045-07A		7p
13439125	MOLEX wafer assy 5045-09A		9p
2341043400	9P Connector w/wiring		
MISCELLANEOUS			
12199552	Fuse Holder UF0005-02		
12369533	Cord Bushing		100V, 220V
12369532	Cord Bushing		117V
12369531	Cord Bushing		240V
2219094300	Cord Bushing Bracket		100V, 220V, 240V
2219094200	Cord Bushing Bracket		117V
12569311	M2C-C200		Lithium Battery
12149323	EWK81A037		extension shaft,coupling
2219075700	Bracket		main board
2219092300	Switch Board Bracket		
2219092200	LED Board Bracket		
2219086100	Power Switch Bracket		
12169334	LED-0500		LED spacer MIDI CH
2226023601	Cushion		display -PCB
2226023500	Cushion		display window - display
2225024500	Shield plate		main board
2225024600	Shield plate		main board
2214020700	Extension Shaft		POWER
2215040100	Sleeve		POWER
2215040200	Coupling		POWER
2215040900	Extension Shaft		Pot
2215057500	Boss nut #215-575		main board

EXPLODED VIEW 分解図

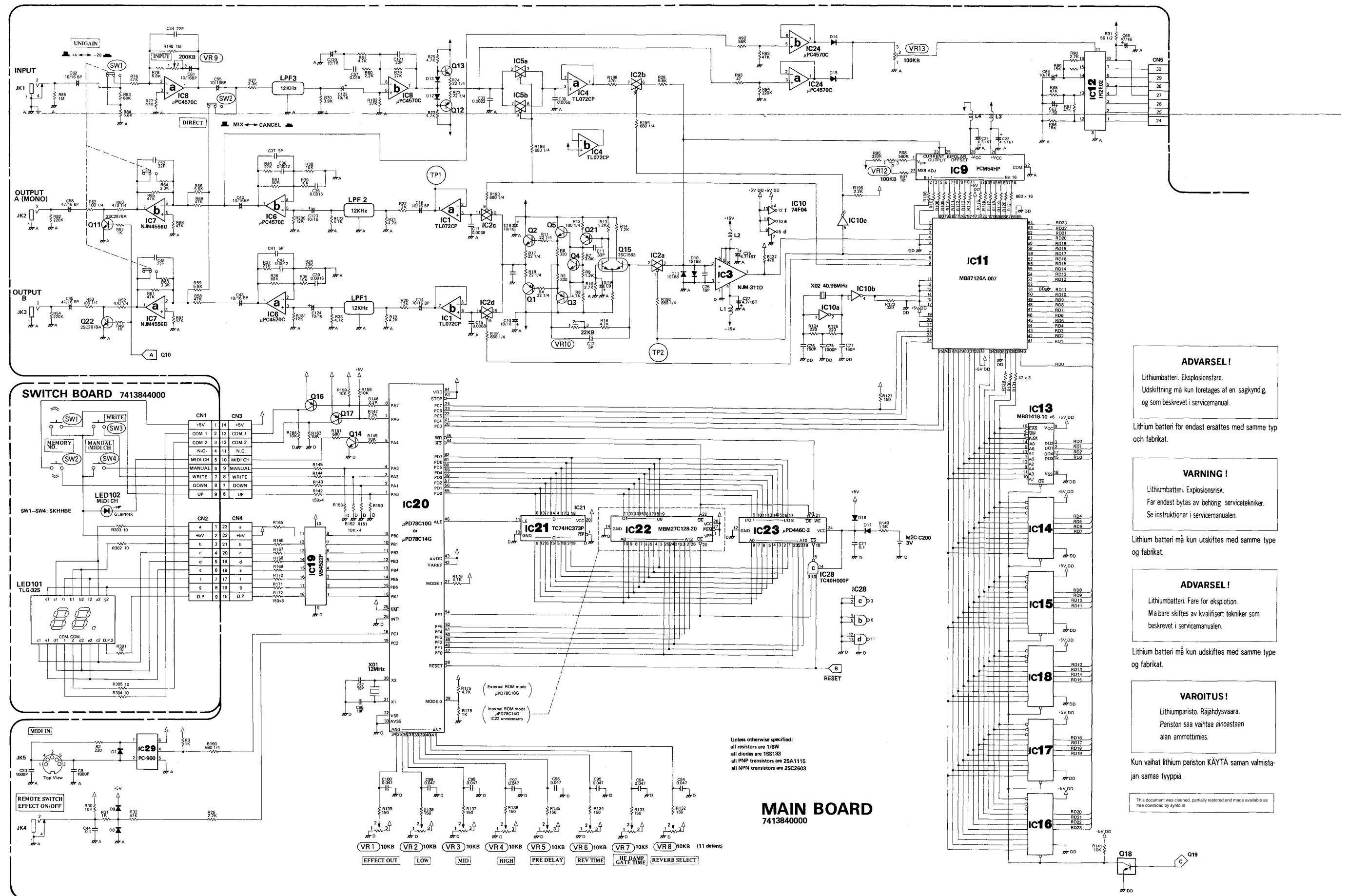
1	Control Panel	コントロールパネル	(2221052900)	14	Extension Shaft, Coupling EWK81A037	延長シャフト,カップリング	(12149323)	30	Side Chassis (L)	サイドシャーシ(L)	(2281056700)
2	LED Panel (Level Meter Window)	LEDパネル	(2221078600)	15	Extension Shaft	EWK81A037		31	Rear Panel	リアパネル	(2221052800)
3	Escutcheon	エスカッション	(2222031900)	16	Front Chassis	VRスリーブ	(2215040900)	32	Cord Bushing Bracket 100/220/240V	コードブッシュホルダ100/220/240V	(2219094300)
4	Display Window	表示器パネル	(2221078500)	17	Extension Shaft	フロントシャーシ	(2281056400)				(2219094200)
5	Cushion	クッション	(2226023500)	18	Button black	ボタン黒	(2247024000)	33	Cord Bushing 100/220V	コードブッシュ100/220V	(12369533)
6	Button Assy blk	ボタン完成品	(2247095500)	19	Sleeve	スリーブ	(2215040100)				(12369532)
7	Button Assy blk	ボタン完成品	(2247097000)	20	Extension Shaft	アーム	(2214020700)	34	AC Cord 100V	ACコード100V	(13439801Y0)
8	Switch Bracket	スイッチボードホルダ	(2219092300)	21	Coupling	スリーブ	(2215040200)				(12369531)
9	LED Display TLG325	LED表示器 TLG325	(15029445)	22	Main Board	メイン基板	(7413840000)				(13439801Y0)
10	Switch Board	スイッチ基板	(7413844000)	23	Power Transformer 100V	電源トランス	(22450472N0)				(13439836D0)
11	LED Board Bracket	LEDボードホルダ	(2219092200)				(22450473C0)				(13439837F0)
12	LED Assy (Level Meter)	レベルLED完成品	(2502043400)				(22450474D0)				(13499111)
13	Knob 8mm dia.	ツマミ		24	Power Transformer 117V		(22450475A0)				(13439808D0)
	green	緑	(2248011000)				(2281056600)	35	Button white	ボタン白	(2247064700)
	orange	橙	(2248011100)	25	Side Chassis (R)	サイドシャーシ(R)	(2219086100)	36	Bottom Cover	ボトムカバー	(2202032900)
	blue	青	(2248011200)	26	Power Switch Bracket	パワースイッチホルダ	(7413855000)	37	Rubber Foot	ゴム足	(2235031300)
	yellow	黄	(2248011300)	27	Power Supply Board	電源基板	(2281056500)	38	Top Cover	トップカバー	(2202032800)
				28	Power Transformer Chassis	トランスシャーシ	(2246049600)	39	Rack Angle	ラックアングル	(2212356800)
				29	Heat Sink	ヒートシンク		40	Boss nut #215-575	ボスナット	(2215057500)



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 41 42 43 44 45 46 47

CIRCUIT DIAGRAM

See P.7 for replaced LPFs 1, 2 and 3. LPF1,2および3についてはP.7の変更案内参照。



ADVARSEL!

Lithiumbatteri. Eksplosionsfare.
Udskiftning må kun foretages af en sagkyndig,
og som beskrevet i servicemanual.

Lithium batteri for endast ersättes med samme type
och fabrikat.

VARNING!

Lithiumbatteri. Explosionsrisk.
För endast bytas av behörig servicetekniker.
Se instruktioner i servicemanualen.

Lithium batteri må kun udskiftes med samme type
og fabrikat.

ADVARSEL!

Lithiumbatteri. Fare for eksplosion.
Må bare skiftes af kvalificeret tekniker som
beskrevet i servicemanualen.

Lithium batteri må kun udskiftes med samme type
og fabrikat.

VAROITUS!

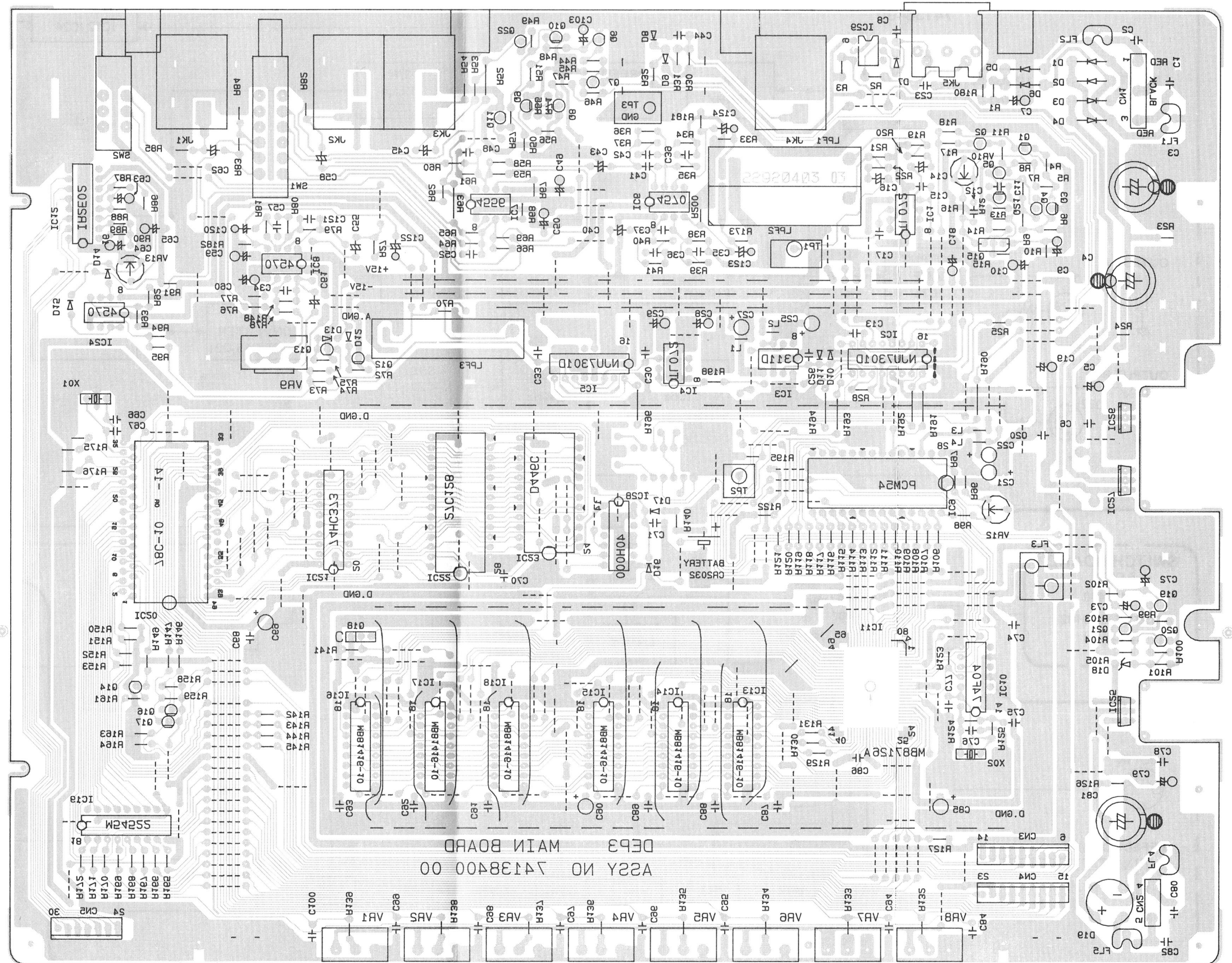
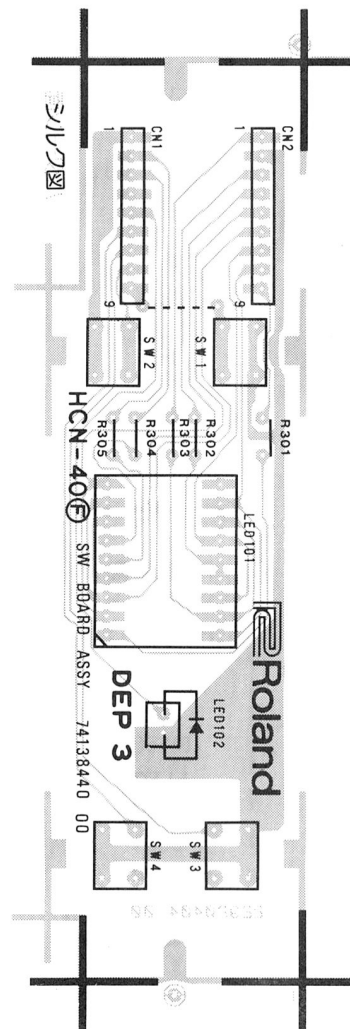
Lithiumparisto. Rajahdysvaara.
Pariston saa vaihtaa ainoastaan
alan ammattimies.

Kun vaiht lithium pariston KÄYTÄ saman valmista-
jan samaa tyyppiä.

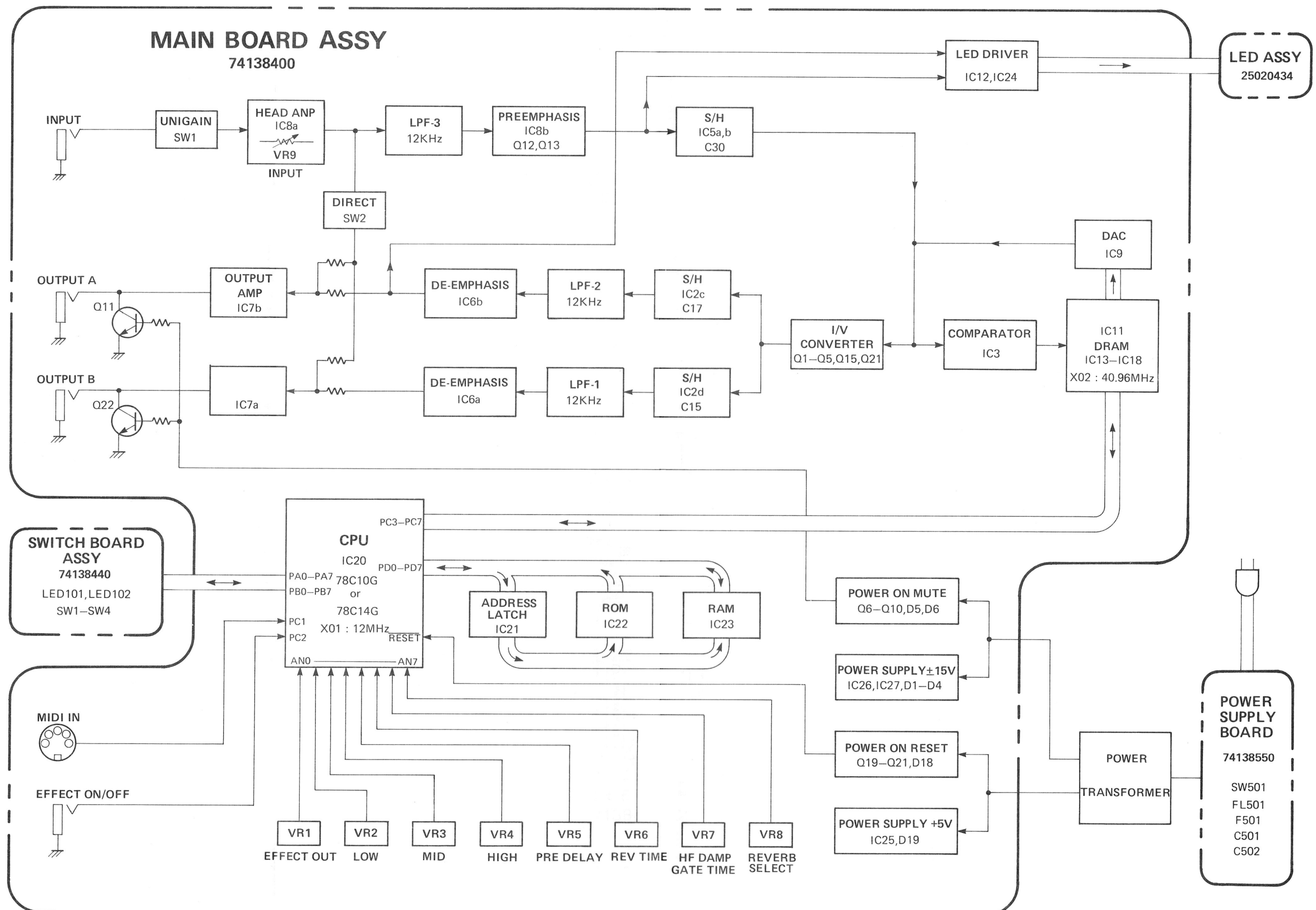
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(pcb 2292040300)

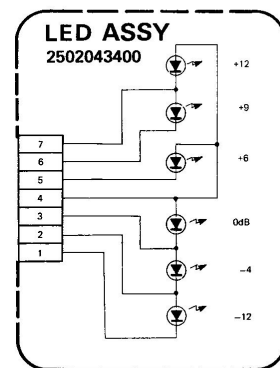
(pcb 2292040400)



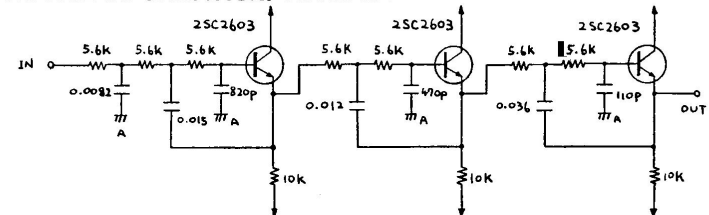
BLOCK DIAGRAM



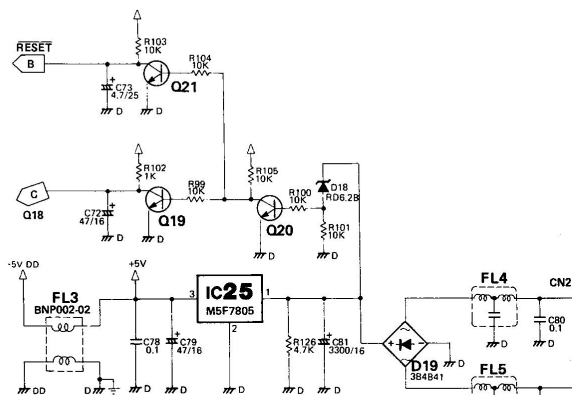
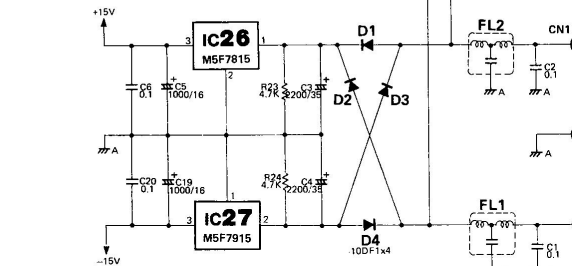
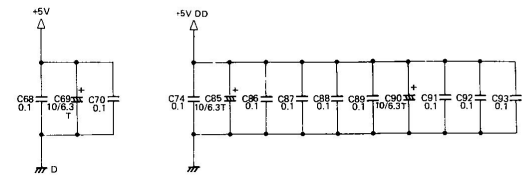
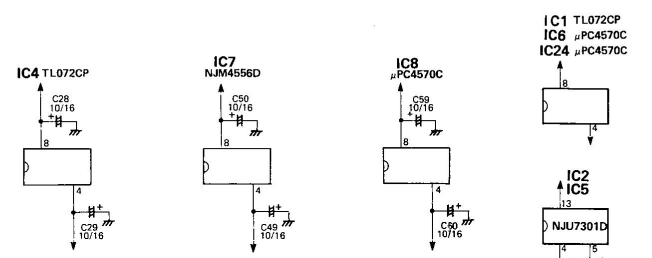
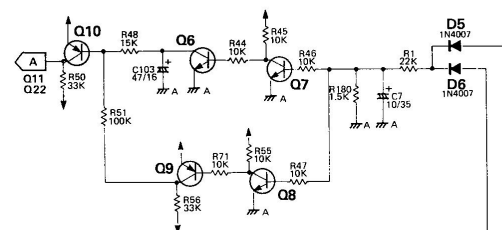
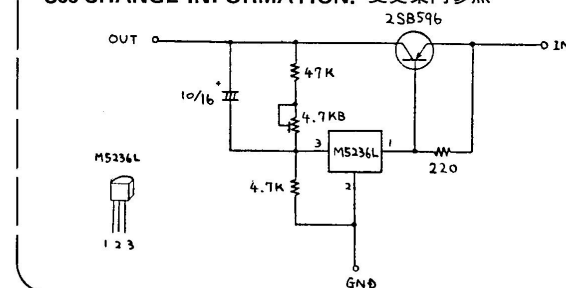
CIRCUIT DIAGRAM



ACTIVE FILTER BOARD (pcb 2292048500)
See CHANGE INFORMATION. 変更案内参照



REGULATOR BOARD (pcb 2292048400)
See CHANGE INFORMATION. 変更案内参照



MAIN BOARD
7413840000

F501	100V	CEE T630mA	12559532
	117V	SD6 630mA	12559413
	220V	CEE T315mA	12559509
	240V	CEE T315mA	12559509

POWER SUPPLY BOARD
7413855000

23.3V 180mA DC

23.3V 180mA DC

9.5V 550mA DC

0V

100V 22450472N0

117V 22450473C0

220V 22450474D0

240V 22450475A0

CHANGE INFORMATION

変更案内

To improve circuit performance the following PCBs are piggybacked on the Main Board as attaching components (factory production only). Effective SN is not fixed yet as date of this issue.

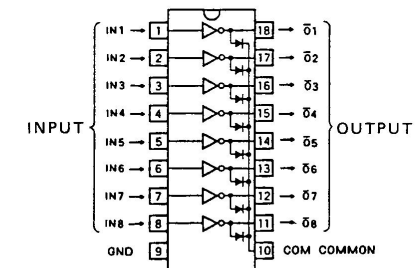
Active Filter Board
Replaces LPFs 1, 2 and 3, respectively.
LPF1, 2および3の置換

回路改善のため下記基板をメインボードの附属基板として搭載(工場生産品のみ) 実施製番は本サービスノート発行時点では未定。

Regulator Board
Replaces IC26, regulator.
レギュレータIC26の置換

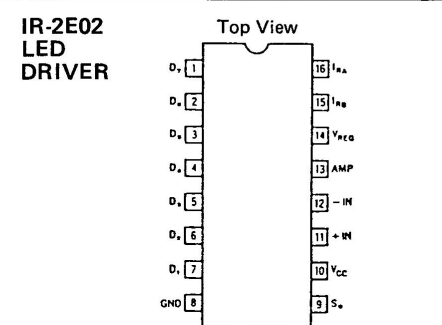
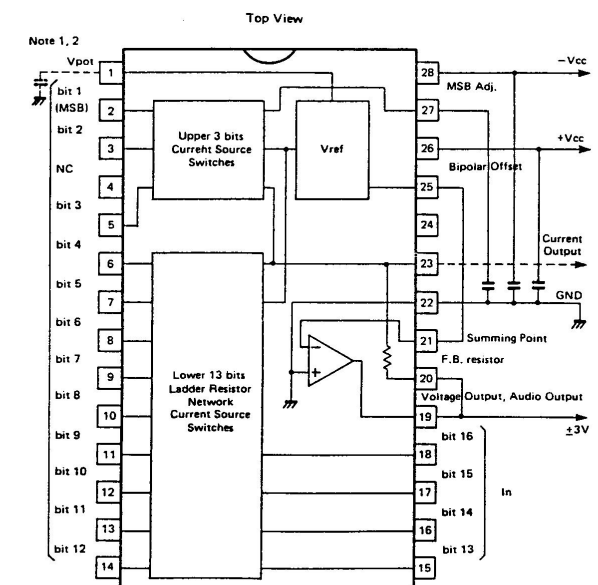
IC DATA

M54522P
8-Unit 400mA Darlington Transistor Array with Clamp Diode



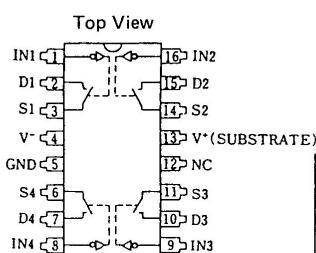
Pin Configuration (Top View)

PCM-54
Digital to Analog Converter



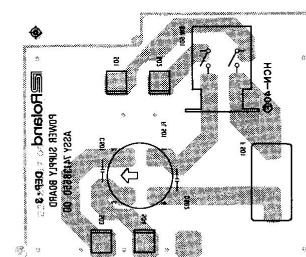
VREG reference voltage output
IRA current setting 1
IRB current setting 2
SO signal detect out
A, B, C constant current sources

NJU7301
Analog Switch



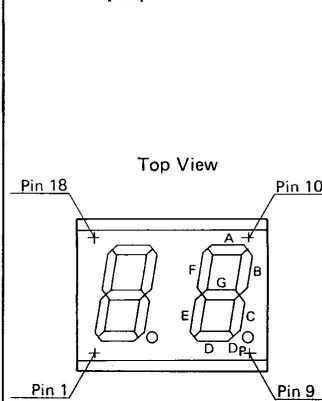
POWER SUPPLY BOARD

7413845100 100V
7413845300 117V
7413845400 220/240V



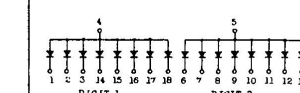
View from foil side

TLG325
LED Display

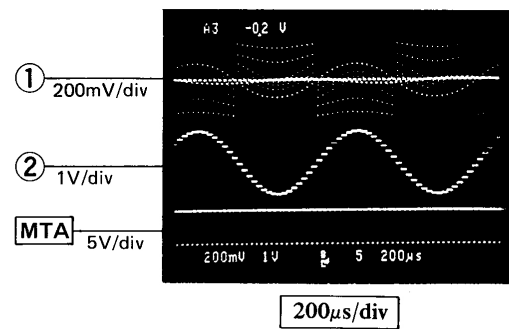


Pin Assignment

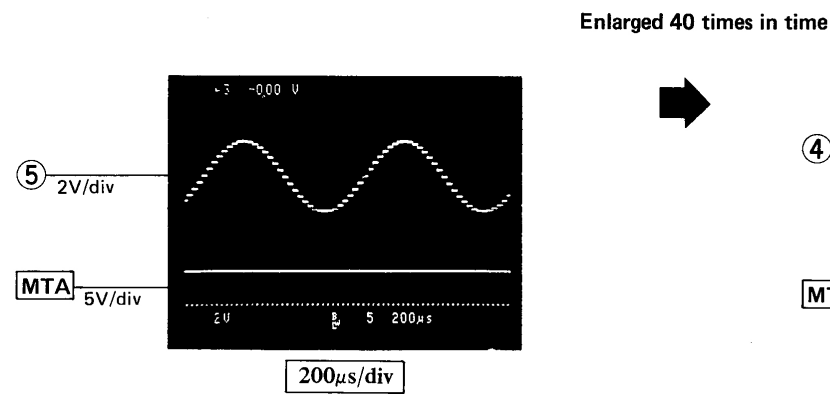
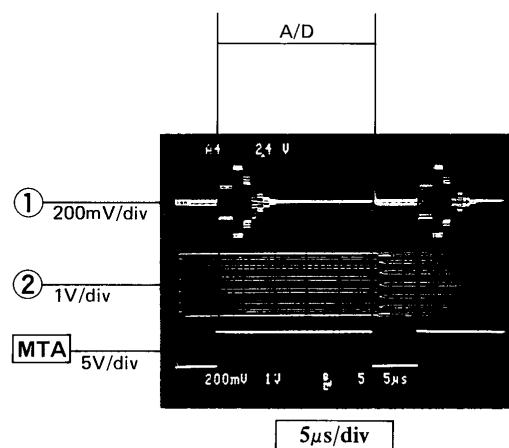
Pin No.	TLG325
1.	DIGIT 1 Cathode C
2.	DIGIT 1 Cathode E
3.	DIGIT 1 Cathode D
4.	DIGIT 1 Common Anode
5.	DIGIT 2 Common Anode
6.	DIGIT 2 Cathode D
7.	DIGIT 2 Cathode E
8.	DIGIT 2 Cathode C
9.	DIGIT 2 Cathode Dp
10.	DIGIT 2 Cathode G
11.	DIGIT 2 Cathode A
12.	DIGIT 2 Cathode F
13.	DIGIT 2 Cathode B
14.	DIGIT 1 Cathode B
15.	DIGIT 1 Cathode F
16.	DIGIT 1 Cathode A
17.	DIGIT 1 Cathode G
18.	DIGIT 1 Cathode Dp



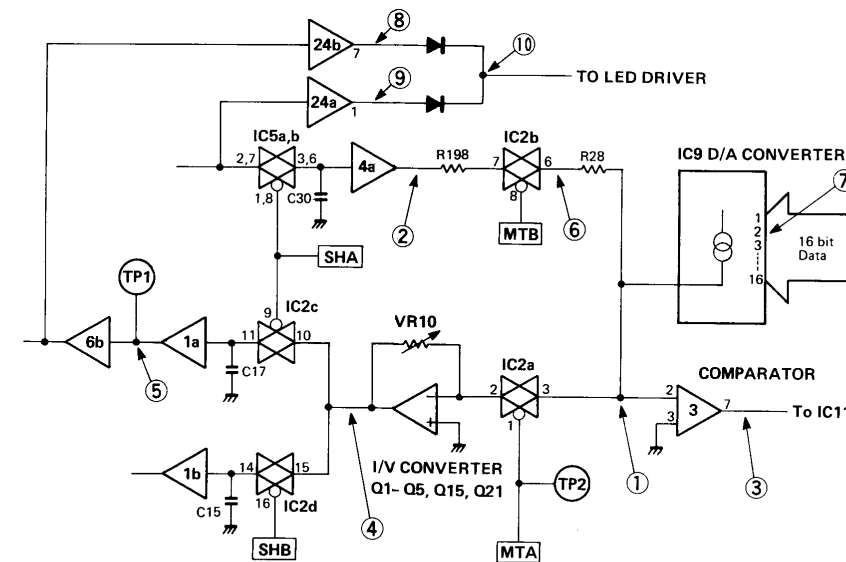
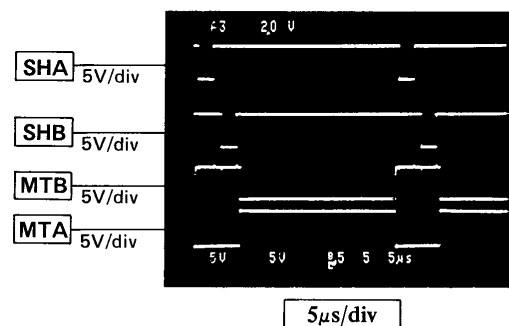
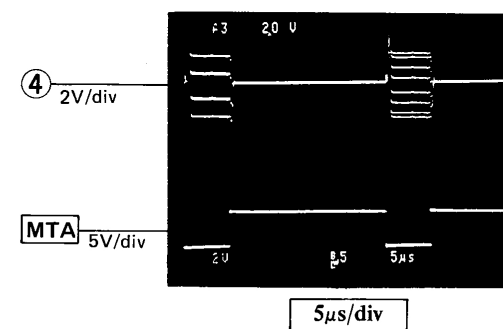
1 PARAMETER : **1** TEST MODE (Set by the program. See table at the center and 2. Test Mode on P.9.)
 INPUT ATT : 0 dB
 UNIGAIN : +4 dBm
 INPUT SIGNAL : 3.47 Vpp
 SINE WAVE
 1 kHz



Enlarged 40 times
in time

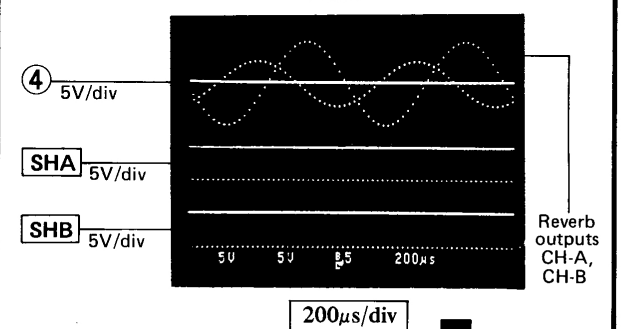


Enlarged 40 times in time

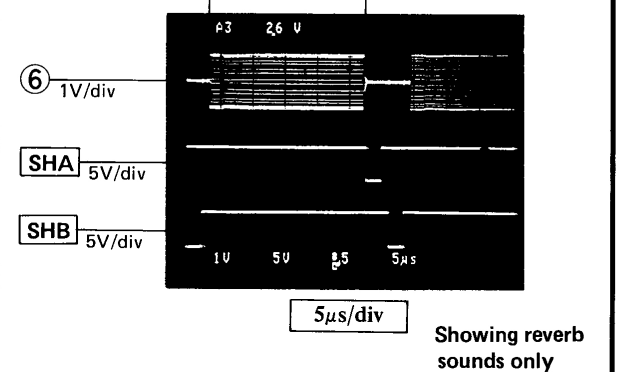


PARAMETER	Effect Out	EQ			Pre Delay [ms]	Reverb Time [s]	HF Damp Gate Time [ms]	HF Damp	Reverb Select
		Low [dB]	Mid [dB]	High [dB]					
1 TEST MODE (Set by software)	6	0	0	0	100	0	1.00		9
2	5	0	0	0	0	2.7	1.00		3

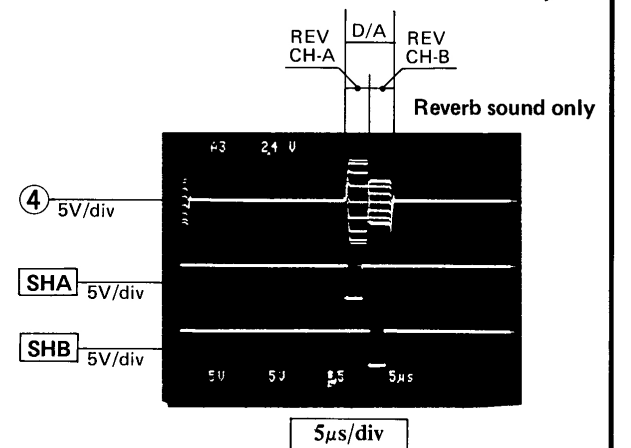
2 PARAMETER : **2** (See table below.)
 INPUT ATT : 0 dB
 UNIGAIN : +4 dBm
 INPUT SIGNAL : 3.47 Vpp
 SINE WAVE
 1 kHz



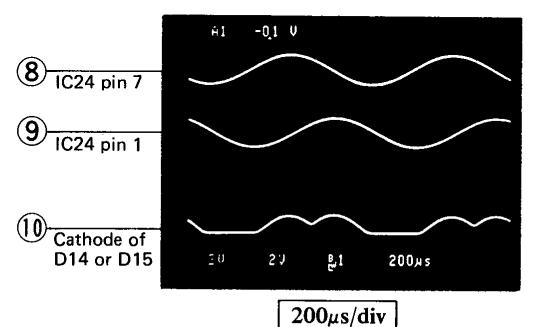
Enlarged 40 times
in time



Showing reverb sounds only

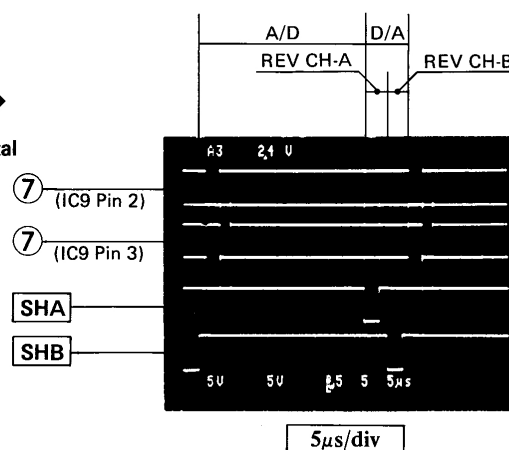
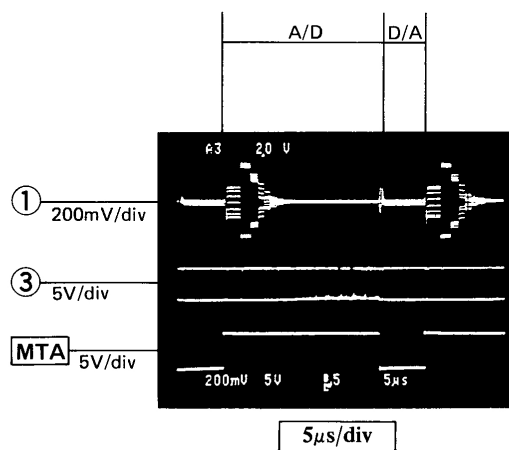


Reverb sound only

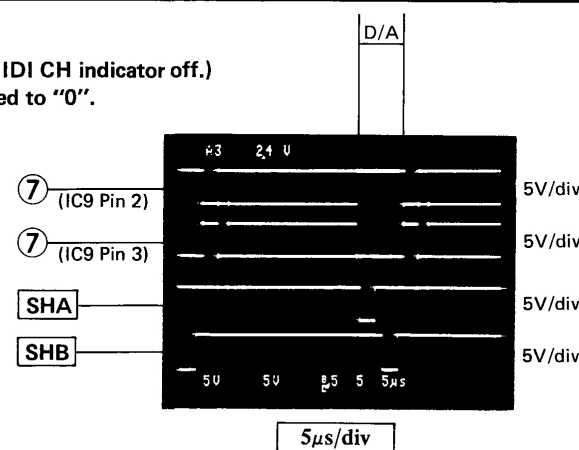


Equivalent

Analog Digital



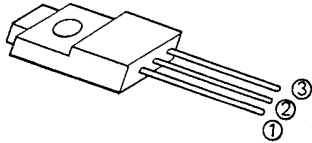
Press "MANUAL" (MIDI CH indicator off.)
 Effect output is lowered to "0".



CHECKING AND ADJUSTING

1. Voltages (Main Board)

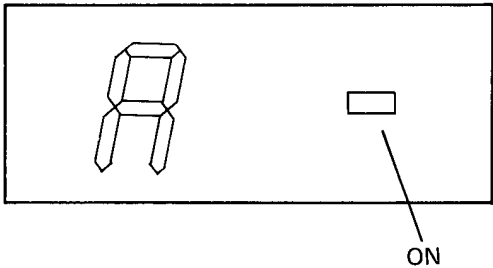
- 1-1. Battery
With power off verify more than +3V on D17 anode with respect to the digital ground (D).
- 1-2. DC Supplies
With power on verify the following voltages with respect to the respective ground.



IC25 pin 3 +4.8 to +5.2V
IC26 pin 3 +14.4 to +15.6V
IC27 pin 3 -15.6 to -14.4V

2. Test Mode

- The following checks and adjustments can be carried out in the test mode provided.
- 2-1. Entering Test Mode
While pressing MANUAL, turn the DEP-3 on. The display will show the test mode sign as shown below.



NOTES

- EFFECT Default setting is on in the test mode: MIDI CH Indicator will serve as EFFECT ON indicator. Effect is toggled by MANUAL.
- INPUT ATT Panel controls (VRs) other than INPUT (VR9) are defeated during the test mode.

3. DAC Level, Level LEDs (Main Board)

Setup
(DEP-3) DIRECT MIX
UNIGAIN . . . +4dBm
(Audio Generator) +4dBm, 1kHz, sine into INPUT
(Meter) Millivoltmeter into OUTPUT A

- 3-1. Press MANUAL, verify that MIDI CH indicator is off.
Adjust INPUT ATT for +4dBm reading on the millivoltmeter.

点検および調整

1. 電圧(メインボード)

- 1-1. バッテリ
電源オフの状態、D17カソード電圧を測定する。
3V以上であること。
- 1-2. DC電源
電源をオンにする。下記電源電圧を確認する。

2. テスト・モード

- 以下の調整、点検はテストモードに入ってから行なっ
て下さい。
- 2-1. テストモードへの入り方
MANUAL ボタンを押しながら電源を入れる。下
図のような表示が出る。

注

- エフェクト
テストモードにおける初期設定は“オン”の状態、
MIDI CH インジケータが点灯します。 MANUAL
ボタンによりオン/オフの切換が出来ます。
- INPUT ATT
INPUT 以外のパネル上のボリュームはテストモード
中無効です。

3. D/ALレベル、レベルLED(メインボード)

設定
(DEP-3) DIRECT MIX
UNIGAIN . . . +4 dBm
(低周波発振器) +4 dBm , 1 KHz , サイン
. INPUT ジャックへ
(ミリボルトメータ) OUTPUT ジャックのAへ

- 3-1. MANUAL を押す。MIDI CHインジケータが消
灯する。
ミリボルトメータ の指示が+4 dBm になる様
INPUT アッテネータを調整する。

- 3-2. Set DIRECT to CANCEL.
Press MANUAL; verify that MIDI CH indicator is
on.
Adjust VR10 for +4dBm reading.
- 3-3. Shift millivoltmeter to OUTPUT B; verify +4dBm
reading.
- 3-4. Set DIRECT to MIX.
Press MANUAL; MIDI CH indicator will go off.
Adjust VR13 so that level LEDs -14dBm to 0dBm
are lit.
- 3-5. Set UNIGAIN to -20dBm; verify the all LEDs up
to +12dBm are lit.
- 3-6. Lower AG output level to -20dBm; verify that
LEDs +6dBm to +12dBm are off.

4. Dynamic Range (Main Board)

Setup
(DEP-3) DIRECT CANCEL
UNIGAIN . . . +4dBm
(Audio Generator) -40dBm, 1kHz, sine into IN-
PUT
(Distortion meter) Into OUTPUT A through IHF-A
filter

- 4-1. Adjust VR-12 for less than 5% distortion factor.

ERROR MESSAGES

CPU will display an error message should it detect a mal-
function during play mode.

Read Error Messages as follows:

- E1 Failure in writing into or reading from RAM,
IC23
E2 Failure in initializing digital signal processor IC11
E3 Failure in transferring data to IC11 during the
initialization
E4 Failure in transferring data to IC11

- 3-2. DIRECT スイッチをCANCEL側に設定する。
MANUALを押す。MIDI CH インジケータが
点灯する。
ミリボルトメータの指示が+4 dBになる様VR10
を調整する。
- 3-3. ミリボルトメータをOUTPUT ジャックのBへ接
続する。指示が+4 dBmであることを確認。
- 3-4. DIRECT スイッチをMIX側に設定する。
MANUALを押す。MIDI CH が消灯する。
-14 dBmから0 dBmまでのLEDが点灯する
様VR13を調整する。
- 3-5. UNIGAIN を-20 dBm側に設定する。+12
dBm迄の全てのLEDが点灯することを確認。
- 3-6. 発振器の出力を-20 dBmに下げる。+6dBm
から+12 dBm迄のLED が消灯することを確認。

4. ダイナミックレンジ(メインボード)

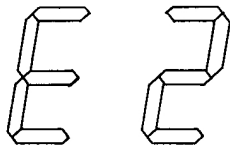
設定
(DEP-3) DIRECT CANCEL
UNIGAIN . . . +4 dBm
(低周波発振器) -40 dBm , 1 KHz , サイン
. INPUTジャックへ
(歪率計) JIS-Aフィルタを介して
OUTPUT Aジャックへ

- 4-1. 歪率が最少(5%以下)になる様VR12を調整
する。

エラーメッセージ

通常のプレイモード中に異常が発生した場合、症状によっ
てはエラーメッセージが表示されます。

Exp. 表示例



メッセージの内容は次の通りです。

- E1 RAM (IC23) に対しリード又はライト不成功
E2 デジタル・シグナルプロセッサ(IC11)の初期
設定不成功
E3 デジタル・シグナルプロセッサへデータの転送が
出来ない(初期設定時)
E4 デジタル・シグナルプロセッサへデータの転送が
出来ない

MODEL DEP-3 MIDI Implementation Chart

Date : Jan. 05. 1987
Version : 1.0

Function.....		Transmitted	Recognized	Remarks
Basic Channel	Default	×	1 – 16	memorized
	Changed	×	1 – 16	
Mode	Default	×	1 , 3 OMNI ON/OFF	memorized
	Messages Altered	×		
Note Number	True voice	×	×	
		*****	×	
Velocity	Note ON	×	×	
	Note OFF	×	×	
After Touch	Key's	×	×	
	Ch's	×	×	
Pitch Bender		×	×	
Control Change		×	×	
Prog Change	True #	×	○ 0 – 127 ** 0 – 98	
System Exclusive		×	○	Parameters
System Common	Song Pos	×	×	
	Song Sel	×	×	
	Tune	×	×	
System Real Time	Clock	×	×	
	Commands	×	×	
Aux	Local ON/OFF	×	×	
Mes-sages	All Notes OFF	×	×	
	Active Sense	×	×	
	Reset	×	×	
Notes		** n : Program Change Number When $0 \leq n \leq 98$, it corresponds with Memory Number n+1. When $n \geq 99$, it corresponds with Memory Number n–98.		

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO ○ : Yes
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO × : No

1. RECOGNIZED RECEIVE DATA

Status	Second	Third	Description
1100 nnnn	0ppp pppp		Program Change ppppppp = 0 - 127
1011 nnnn	0111 1100	0000 0000	OMNI OFF
1011 nnnn	0111 1101	0000 0000	OMNI ON
1111 0000	1111 0111	System exclusive

2. RECOGNIZED EXCLUSIVE MESSAGE

Exclusive message is based on following structure

Byte	Description
a 1111 0000	Exclusive status
b 0100 0001	Roland ID #
c 0000 nnnn	Device-ID # = MIDI basic channel where nnnn + 1 = channel #
d 0001 0010	Model-ID # (DEP-3)
e 0001 0010	Command-ID # (DT1)
f 0aaa aaaa	Address MSB
g 0bbb bbbb	Address LSB
j 0ccc cccc	Data
k 0ddd dddd	Data
l 0eee eeee	Data
m 0fff ffff	Data
n 0ggg gggg	Data
o 0hhh hhhh	Data
p 0iii iiii	Data
q 0jjj jjjj	Data
r 0kkk kkkk	Checksum
s 1111 0111	End of System Exclusive

Notes :

*2-1 If aaaaaa - bbbbbb doesn't indicate the top address of the parameter, the message will be ignored.

*2-2 Summed value of the all bytes between Command-ID and EOX must be 00H (7 bits). It is not include Command-ID and EOX.

3. Address mapping of parameters

Address of parameter

0000 : Temporary parameter

0 : 00aa aaaa : EFFECT OUTPUT LEVEL
1 : 00bb bbbb : BOOST/CUT OF LOW FILTER
2 : 00cc cccc : BOOST/CUT OF MIDDLE FILTER
3 : 00dd dddd : BOOST/CUT OF HIGH FILTER
4 : 00ee eeee : PRE DELAY or DELAY TIME
5 : 00ff ffff : REVERB TIME or FEEDBACK OF DELAY
6 : 00gg gggg : HF DAMP or GATE TIME
7 : 00hh hhhh : REVERB SELECT

0080 : Memory number 1

0 : 00aa aaaa : EFFECT OUTPUT LEVEL
1 : 00bb bbbb : BOOST/CUT OF LOW FILTER
2 : 00cc cccc : BOOST/CUT OF MIDDLE FILTER
3 : 00dd dddd : BOOST/CUT OF HIGH FILTER
4 : 00ee eeee : PRE DELAY or DELAY TIME
5 : 00ff ffff : REVERB TIME or FEEDBACK OF DELAY
6 : 00gg gggg : HF DAMP or GATE TIME
7 : 00hh hhhh : REVERB SELECT

0100 : Memory number 2
:
7

0180 : Memory number 3
:
7

3180 : Memory number 99
:
7

Notes :

The actual values obtained on the DEP-3 differ from the values sent with MIDI (#0-#63).
From the Roland distributor in your country, you can attain the table that shows how the MIDI values correspond to the actual values on the DEP-3.